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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,712	11/19/1999	DAVID MICHAEL SPRAGUE.	1322/8	7620

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EXAMINER

LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 08/18/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/443,712

Applicant(s)

SPRAGUE ET AL. 

Examiner

Timothy Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 48-57 and 79-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 48-57 and 79-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15, 17, 20.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 10, 48, 49, 52, 57 and 79-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. (US 5,923,659). Curry et al. discloses a system and method for controlling two or more telecommunications networks which are themselves capable of exercising a form of common channel signaling network control. In Fig. 12, Curry et al. discloses the receiving of an SS7 packet message at an STP from an SSP (receiving at a first STP a first SS7 user part message). Inherently, if the SSP is sending an SS7 packet message to the STP over link, the link itself must be a type of SS7 link (over an SS7 signaling link). When the STP recognizes that a foreign prefix exists, it directs the packet to the Internet Module, where the Module performs the necessary address determination and adds the appropriate addressing and instructional overhead to encapsulate the packet in one or more TCP/IP packets, and transmits the packet over the Internet (encapsulating the SS7 user part message in a first IP packet; transmitting the IP packet to a second SS7 signaling point over an IP network; IP packet includes adding a TCP header). See Fig. 12, and col. 21, lines 12-50. Curry et al. does not expressly disclose performing the encapsulation of an SS7 packet and the transmitting of the newly encapsulated packet at the signal transfer point. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the functions of the

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Internet Module with the functions of the signal transfer point. One would have been motivated to do this because it would streamline the setup, thus making the system more compact and reducing the number of components needed to make the system.

3. Regarding claims 3 and 50, Curry et al. does not expressly disclose adding a UDP header on the SS7 user part message, but it would have been obvious to do this. One would have been motivated to do this because Curry et al. discloses adding a TCP header, and UDP and TCP are very similar protocols and both work on the same layer—having the capabilities to add TCP would have also allowed UDP to be added.

4. Regarding claims 5 and 52, Curry et al. does not mention termination user part layer communications (transmitting the first IP packet without terminating user part layer communications).

5. Regarding claims 10 and 57, Curry et al. describes sending the packet over foreign lands, so this would indicate that the message is being transmitted to and from different local areas, and therefore, classify as an E link between the first STP and the SSP.

6. Regarding claims 79 and 81, Curry et al. discloses using ISDN user part messages as part of the call control application protocol of SS7 (SS7 user part messages comprises an ISDN user part message). See col. 14, lines 6-20.

7. Regarding claims 80 and 82, the first signal transfer point naturally intercepts calls directed to a second signal transfer point simply by being in the connection process—all calls directed to the second signal point located over the Internet must go through the first signal transfer point at some point in the process (intercepting a SS7 message). As mentioned previously, the Internet module performs the necessary address determination and adds the

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appropriate addressing and overhead to encapsulate the packet in TCP/IP packets (inserting a destination IP address corresponding to the second signal transfer point). At the second signal point, there is an end office for receiving the call sent over the Internet (second signal point comprises an end office for a call associated with the first SS7 message).

8. Claims 4 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. in view of Schrodi et al. (US 5,173,897), in light of the rejections to claims 1 and 48. Curry et al. does not expressly disclose including an application-level sequence number to the SS7 user part message. Schrodi et al. discloses adding a sequence number to ATM cells in transmission. See col. 1, lines 34-47. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the teachings from Schrodi et al. of adding sequence numbers to packets in the SS7 packets disclosed by Curry et al.. One of ordinary skill in the art would have been motivated to do this because adding sequence numbers allows the receiver to know if a packet fails to transmit, or if the packets get transmitted out of sequence.

9. Claims 6-9 and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. in view of Valentine et al. (US 6,328,267), in light of the rejections to claims 1 and 48. Curry et al. does not expressly disclose a network setup that would include A links, B links, C links, or D links in SS7 networks. Valentine et al. discloses that all of those link types can exist from A through F and depicts the different links in Fig. 1. See also col. 5, line 47-col. 6, line 8. It would have been obvious to a person of ordinary skill in the art at the time of the invention to be able to send the IP packets disclosed in Curry et al. over the A through D links disclosed in Valentine et al. One of ordinary skill in the art would have been motivated to do this because Curry et al. already disclosed it was possible to send it through the message through an

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E link—the links are all very similar, but they have slightly different structures and purposes, so adapting the technique used for the E link to the other links should be possible.

Response to Amendment

10. The affidavit under 37 CFR 1.132 filed June 27, 2003 is insufficient to overcome the rejection of claims 1 and 48 based upon specific reference applied under **35 U.S.C. 103** as set forth in the last Office action. The central argument found in the affidavit states that there is no motivation or suggestion of combining the IP encapsulating functionality found in the Internet Module with the STP of Curry et al.. The Examiner concedes that in Curry et al., the encapsulation of SS7 messages occurs outside of the STP in an adjacent module. However, to establish a *prima facie* case of obviousness, it is not necessary to find the motivation in the reference itself. As stated in **MPEP § 706.02(j)**, motivation or suggestion only needs to be found in the knowledge generally available to one of ordinary skill in the art. As mentioned previously in the rejection to claims 1 and 48, one of ordinary skill in the art would have been motivated to combine the functions of the Internet module with those found in STP in order to reduce the number of components found in the system.

Response to Arguments

11. Applicant's arguments with respect to claims 1-10 and 48-57 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments filed June 27, 2003 have been fully considered but they are not persuasive.

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13. In response to the Applicant's argument that message sent from STP 118 is a query message, the STP in Fig. 15 is not responsible for sending any messages and different from the STP found in Fig. 12. As stated in col. 21, line 63-col. 22, line 21, Fig. 15 illustrates a separate embodiment of the Curry et al. invention. In Fig. 15, the STP is not even connected to the Internet Module like it is in Fig. 12 as messages are send straight from the SSP to the Internet Module. Therefore, the argument that a query message and user part message are not the same is irrelevant. The Examiner maintains that the SS7 packet message sent from the SSP to the STP in Fig. 12 can be considered similar to the SS7 user part message of claims 1 and 48.

14. In response to the Applicant's argument that the commercial success of the Applicant's IP7 equipment is additional evidence of the non-obviousness of encapsulating SS7 messages at an STP, the Examiner contends that the Applicant has not established a nexus between the claimed invention and evidence of commercial success. See also **MPEP § 706.03**. The email submitted showing the sales of IP7 equipment does not prove that the claimed invention was the direct cause of those sales, or that the claimed invention even existed in those products. Many other factors could have contributed to sales of the IP7 equipment, such as aggressive advertising, effective sales people, low-cut pricing, or even another feature in those products that was more important than the claimed invention.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703)305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

TLL
August 8, 2003



HASSAN KIZOU
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